UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	09/749,586	HEO ET AL.
	Examiner	Art Unit	
	Jamie Vent	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 June 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All   b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments, see appeal brief, filed June 8, 2007, with respect to claim

1 have been fully considered and are persuasive. The final action of August 23, 2006

has been withdrawn and the following action is a non-final rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-40 are rejected under 35 U.S.C. 103(a) as being unpatentable by Lee

et al (US 5,570,340) in view of Ohno et al (US 5,512,938) in further view of Otomo et al

(US 6,532,335).

[claim 1]

In regard to Claim 1, Lee et al discloses a recording medium on which is recorded a data

structure comprising:

- first data and second data which are different from each other in type and formed

  of a respective plurality of data units (Figure 3 shows the first data 18 and second

  data 20 as further described Column 6 Lines 42-50);

- a first data unit descriptor table and a second data unit descriptor table in which

  information on the first data units and the second data units is respectively

recorded as data unit descriptors (Figure 3 shows the first table descriptor 14 and

second table descriptor 18 as further described in Column 6 Lines 44-52); and

- a first program descriptor table and a second program descriptor table in which

  information on one or more data units forming respective programs is stored in a

  program descriptor of a corresponding program in the form of information on

  respective data unit descriptors, wherein the information on the first data units,

  which are to be reproduced after the first data units are linked to the second data

  units, is included in the program descriptor of the second program descriptor

  table (Column 2 Lines 32-44 describes the linking of data units that are included

  in the second program descriptor table.); however fails to disclose

- the first and second program descriptor tables are recorded independently of the

  first and second data unit descriptor tables and that the first and second program

  descriptor tables are recorded independently of the first and second data unit

  descriptor tables and the first and second data units.

Ohno discloses a system wherein the recorded first and second descriptor tables are shown

being recorded independently as seen in video and audio and further recited in Column 9 Lines

10+. The recording of the video and audio independently allows for reproduction of first and

second data units (i.e. video and audio units) allowing for generation of new applications linking

the two data units. Otomo et al further teaches the ability to store and record first and second

program descriptor tables that provide links between the two stored tables as seen in Figure 13.

The information stored on the directory provides independently recorded information that is

linked to another independently recorded media. Therefore, it would be obvious to one of

ordinary skill in the art to use the recording medium, as disclosed by Lee et al, and further

incorporate a system allows independently recording descriptor tables, as recited by Ohno, and

further incorporate a system to record the first and second program descriptor tables

independently, as taught by Otomo et al, to allow for a more efficient storage and reproducing of

data through the use of descriptor tables.

[claims 2, 7, 13, 19, 24, 32]

In regard to Claims 2, 7, 13, 19, 24, and 32, Lee et al discloses a recording medium wherein the

first data is video data of still pictures and the second data is audio data (Column 1 Lines 15-25

and Column 7 Lines 15-20 discloses that the first data is video data in the form of still pictures

and the second data is audio data).

[claims 3, 8, 20, 25, & 33]

In regard to Claims 3,8,20,25, and 33, Lee et al discloses a recording medium wherein

predetermined information in the first data unit descriptor is copied, as the information on the

first data unit, to the program descriptor of the second program descriptor table (Column 7 Lines

35-50 describes the process of copying the first data unit descriptor regarding information about

the first data unit into the second program descriptor table).

[claims 4, 9, 15, 21, 26, & 34]

In regard to Claims 4, 9, 15, 21, 26 and 34, Lee et al discloses a recording medium wherein the

predetermined information on a recording time of the first data unit (Figure 2 shows the time of

the first data unit which is further described in Column 6 Lines 29-40).

[claims 5, 27, & 35]

In regard to Claims 5, 27, and 35, Lee et al discloses a recording medium, wherein the

predetermined information on the first data unit in the second program descriptor table is not the

same as the corresponding information on the first data unit in the first data unit descriptor, the

information on the first data unit in the second program descriptor table is updated so that the

information is the same as the information on the first data unit in the first data unit descriptor

(Column 6 Lines 7-50 describe the process wherein the second program descriptor table is updated so that information is the same as the first unit descriptor).

[claims 6, 38, & 39]

In regard to Claims 6, 38, and 39, Lee et al discloses a recording medium comprising:

- recording first data and second data, which are different from each other in type and each formed of a respective plurality of data units, on a recording medium (Figure 3 shows the first data 18 and second data 20 as further described Column 6 Lines 42-50 wherein the data is recorded onto the recording medium); and

- recording a first data unit descriptor table and a second data unit descriptor table on the recording medium, wherein information on the first data units and the second data units is stored as data unit descriptors in the first and second data unit descriptor tables, respectively (Figure 3 shows the first table descriptor 14 and second table descriptor 18 as further described in Column 6 Lines 44-52);

- recording a first program descriptor table and a second program descriptor table on the recording medium, wherein information on one or more data units forming respective programs are stored as a program descriptor of a corresponding program in the form of information on respective data unit descriptors, and wherein the information on at least one of the plurality of the first data units, which is to be reproduced after the at least one of the plurality of first data units is linked to at least one of the plurality of the second data units, is included in the program descriptor of the second program descriptor table (Column 2 Lines 32-44 describes the linking of data units that are included in the second program descriptor table.); and

- the first and second program descriptor tables are recorded independently of the first and second data unit descriptor tables (Column 6 Lines 43+ describes the data areas wherein the program descriptor tables and unit descriptor tables are recorded. Each table has a specific area as further seen in Figure 3 and thereby allows for independent recording of each area).

[claims 10, 16, 22 28, & 36]

In regard to Claims 10, 16, 22, 28, and 36, Lee et al discloses a recording method comprising:

- determining whether information on the first data unit in the second program descriptor table is the same as the information on the first data unit in the first data unit descriptor (Column 7 Lines 5-35 describes the determination of whether the first data unit on the second table is the same as the first data unit on the first table); and

- when the two items of information are not the same, updating the information on the first data unit in the second program descriptor table so as to become the same as the information on the first data unit in the first data unit descriptor, and recording the updated information (Column 7 Lines 35-50 describe the updating the information of tables so they are the same).

[claims 11 & 30]

In regard to Claims 11 and 30, Lee et al discloses a reproducing method of reproducing data from a recording medium on which first data and second data which are different from each other in type and formed of a plurality of data units are recorded; a first data unit descriptor table and a second data unit descriptor table, in which information on the first data units and the second data units are respectively stored as data unit descriptors, are recorded (Figure 3 element 14 and 16 show the first and second descriptor tables); and a first program descriptor

table and a second program descriptor table in which information on one or more data units

forming respective programs are stored in the program descriptor of the corresponding program

in the form of information on respective data unit descriptors, wherein in the program descriptor

of the second program table information for linking the first data and the second data are

recorded (Figure 9 shows the linking of various program and table information),

the reproducing method comprising:

- reading the second program descriptor having the information on the program to

  be reproduced, and then reading the information on the first data unit descriptor

  and the second data unit descriptor related to the corresponding program, from

  the read second program descriptor (Column 2 Lines 50-57 describes the

  reading of the information related to the corresponding program);

- reading the corresponding data unit descriptors from the first and second data

  descriptor tables corresponding to the read first and second data unit descriptors

  wherein the first and second program descriptor tables are recorded

  independently of the first and second data unit descriptor tables (Column 2 Lines

  58-64 describes the reading of the corresponding tables. Furthermore, in

  Column 6 Lines 43+ describes the data areas wherein the program descriptor

  tables and unit descriptor tables are recorded. Each table has a specific area as

  further seen in Figure 3 and thereby allows for independent recording of each

  area).); and

- synchronizing and reproducing the first data unit and the second data unit

  indicated by the read first and second data unit descriptors.(Column 2 Lines 58-

  67 describes the synchronizing of data in the unit descriptor tables).

[claim 12]

In regard to Claim 12, Lee et al discloses a reproducing method wherein the synchronizing and reproducing further comprises:

- temporarily storing the first data units indicated by the first data unit descriptors corresponding to the program to be reproduced to a memory (Column 2 Line 57 describes the storing of the first data into the first memory); and

- reproducing the second data units indicated by the second data unit descriptors corresponding to the program to be reproduced, and at the same time synchronizing, to the second data, and reproducing the first data units after reading the first data units stored in the memory (Column 2 Lines 50-67 describes the reproducing of data corresponding to the reproduced data and storing the data in the respected memory.)

[claim 14]

In regard to Claim 14, Lee et al discloses a reproducing method, wherein the information on the first data unit, which is to be reproduced after the first data unit is linked to the second data unit, is stored, as linkage information, in the program descriptor of the second program descriptor table, and predetermined information in the first data unit descriptor is copied, as the information on the first data unit, to the program descriptor of the second program descriptor table (Column 3 Lines 18-30 describes the linking and copying of information of the first data unit to the second program descriptor table).

[claim 17]

In regard to Claim 17, Lee et al discloses a reproducing method further comprising:

- determining whether the information on the first data unit in the second program descriptor table is the same as the information, which corresponds to the information on the first data unit, on the first data unit in the first data unit

descriptor (Column 3 Lines 10-17 describes the determination of whether the

information on the first and second data unit is the same as that in the first data

unit descriptor table); and

- when the two items of information are not the same, reproducing the second data unit while withholding reproduction of the first data unit (Column 3 Lines 15-30 describes the withholding of reproduction of the first data unit when two items of information are not the same).

[claim 18]

In regard to Claim 18, Lee et al discloses a recording apparatus for recording data of different

types on a recording medium, the recording apparatus comprising:

- a first signal processor which formats a first data stream input into independent units(Figure 10 shows the digital signal processor (DSP) 150 which decodes the signal into units as further described in Column 8 Lines 15-20),

- codes the formatted first data units, and provides the encoded first data units to the recording medium (Column 8 Lines 15-25 describes the encoding of the units to the recording medium);

- a second signal processor which formats a second data stream input into independent units, codes the formatted second data units, and provides the coded second data units to the recording medium (Column 8 Lines 30-58 describes the second signal processor which decodes the signal into independent units and provides the information to the recording unit); and

- a system controller which generates a first data unit descriptor table and a second data unit descriptor table, in which information on the first data units and the second data units are respectively stored as data unit descriptors, and a first

program descriptor table and a second program descriptor table, in which

information on one or more data units forming respective programs are stored in

a program descriptor of a corresponding program in the form of information on

respective data unit descriptors, wherein information on the first data unit, which

is to be reproduced after being linked to the second data unit, is included in the

program descriptor of the second program descriptor table (Figure 10 MCPU 200

controls information that is stored in the descriptor tables (memory 300) As

further described in Column 8 Lines 59-67);

- the first and second program descriptor tables are recorded independently of the

   first and second data unit descriptor tables (Column 6 Lines 43+ describes the

   data areas wherein the program descriptor tables and unit descriptor tables are

   recorded. Each table has a specific area as further seen in Figure 3 and thereby

   allows for independent recording of each area).

[claims 23 & 31]

In regard to Claims 23 and 31, Lee et al discloses an apparatus for reproducing data from a

recording medium on which first data and second data, which are different from each other in

type and formed of a plurality of data units, are recorded, as previously disclosed in Claim 11,

with the additional limitation of the reproducing apparatus comprising:

- a system controller which reads the second program descriptor having the

   information on the program to be reproduced, reads the information on the first

   data unit descriptor and the second data unit descriptor related to the

   corresponding program from the read second program descriptor, and reads

   corresponding data unit descriptors from the first data descriptor table and the

   second data descriptor table corresponding respectively to read information on

the first data unit descriptor and the second data unit descriptor wherein the first

and second program descriptor tables are recorded independently of the first

and second data unit descriptor tables (Figure 10 MCPU 200 is the system

controller which reads the various descriptor table information as disclosed in

Column 8 Lines 13-67. Additionally, Column 6 Lines 43+ describes the data

areas wherein the program descriptor tables and unit descriptor tables are

recorded. Each table has a specific area as further seen in Figure 3 and thereby

allows for independent recording of each area);

- a memory (Figure 10 memory 300);

- a first signal processor and second signal processor (Figure 10 DSP 150 and

  MCPU acts as signal processor which decodes information regarding the data

  contained in the descriptor tables).

[claims 29 & 37]

In regard to Claims 29 and 37, Lee et al discloses reproducing apparatus wherein the memory

is embedded in the first signal processor (Figure 10 shows the memory 300 which is embedded

in the signal processor MCPU 200).

[claim 40]

In regard to Claim 40, Lee et aldiscloses a data structure for synchronizing reproduction of a

data unit of a first type with reproduction of a data unit of a second type from a recording

medium, the data structure comprising: a first and second table which relates a first and second

data unit descriptor with the first and second data unit and a third table which enables

synchronization of predetermined ones of the first data units with predetermined ones of the

second data units by reference to corresponding ones of the first and second data unit

descriptors (Figure 3 shows the first table descriptor 14 and second table descriptor 18 as

further described in Column 6 Lines 44-52. Furthermore, it is disclosed in Column 2 Lines 50+

a third table which provides corresponding descriptors of the first and second units).

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Ando et al (US 6,215,746).

Contact Information

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jamie Vent whose telephone number is 571-272-7384.

The examiner can normally be reached on 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Miller can be reached on 571-272-7353. Effective July 15, 2005, the

Central Fax Number will change to 571-273-8300. Faxes sent to the old number (703-872-

9306) will be routed to the new number until September 15, 2005.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

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